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RADIATION DETECTOR HAVING IMPROVED ACCURACY

Abstract of the Disclosure

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Tympanic temperature measurements are obtained from the output of a thermopile mounted in an extension from a housing. The housing has a temperature display thereon and supports the electronics for responding to sensed radiation. The thermopile is mounted in a highly conductive can which includes a radiation guide and thermal mass. The guide provides a narrow field of view due to a fairly high emissivity. Electronics determine the target temperature as a function of the temperature of the hot junction of the thermopile determined from the cold junction temperature and a thermopile coefficient. The tympanic temperature is adjusted to provide an indication of core temperature.

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